

Docket No. 05-0407
Quality Exhibit 4, Attachment 4

Standard Specifications for Road and Bridge Construction adopted January 1, 2002, Section 440, Article 440.01; 440.03; 440.07; and 440.08

Standard Specifications For Road and Bridge Construction

Adopted January 1, 2002

Price: \$30.00



**Illinois Department
of Transportation**

Quality Exhibit 4, Attachment 4



Illinois Department of Transportation

Departmental Policies

D&E-2

March 1, 2001

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

1. **POLICY.** Road and bridge construction shall be performed according to the standards set forth in this Policy.
2. **PURPOSE.** The purpose of this Policy is to provide for the publication of a book prescribing the Standard Specifications for Road and Bridge Construction.
3. **GUIDELINES FOR IMPLEMENTATION.** The book outlines the general requirements and covenants applicable to all highway construction improvements as well as provisions relating to materials, equipment, and construction requirements for individual items of work (as defined in the book) on road and bridge construction projects awarded by the Department.

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The book provides detailed requirements on such subjects as:

- a. General Requirements and Covenants
- b. Earthwork, Landscaping, Erosion Control
- c. Subgrades, Subbases, and Base Courses
- d. Surface Courses, Pavements, Rehabilitation, and Shoulders
- e. Structures
- f. Incidental Construction
- g. Work Zone Traffic Control, Signing, and Pavement Marking
- h. Electrical Requirements
- i. Materials
- j. Equipment

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restructured.

4. **RESPONSIBILITIES.** The Division of Highways and its Districts shall implement the standards published in the book accompanying this Policy.
5. **ACCESSIBILITY.** Copies of this Policy may be obtained from the Bureau of Design and Environment in the Harry R. Hanley Building. This Policy may be examined in the Hanley Building Library and in each of the nine District Highway Offices. Copies of this book may be obtained from the Bureau of Highways Administration, in the Hanley Building.

CLOSING NOTICE. Supersedes: Departmental Policy DES-6, Standard Specifications for Road and Bridge Construction.

Approved:

James C. Slifer March 23, 2001
Director of Highways Date

January 1, 2002
Date

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(3202393-25,000-7-01)

ate Sidewalk

fall between the sidewalk proper and

using equipment approved by the

grade shall be moistened just before placed in successive batches for the and finished to a true and even ng shall be done with a wooden float, be permitted. After the water sheen a final finish by brushing with a ss the sidewalk at right angles to the ly overlapping, producing a uniform, rks.

constructed at right angles to the all extend to 1/4 the depth of the or more than 6 mm (1/4 in.) in width, 6 mm (1/4 in.) radius. No slab shall m (4 ft) on any one side, unless es of the slabs shall be edged as

ints of the thickness specified below the joint shall be placed 6 mm (1/4

i. Expansion joints 15 mm (1/2 in.) vork and all structures such as light poles and subway columns, which

Transverse expansion joints 20 mm s of not more than 30 m (100 ft) in onstructed adjacent to pavement or ision joints in the sidewalk shall be n joints as nearly as practicable. where the sidewalk abuts existing ent and sidewalk, and between abuts a curb.

ssibility ramps to the disabled shall own on the plans in alignment with sufficient curb length at the corner

ll be wholly contained within the of the side flares shall be as shown

Sidewalk ramps shall be constructed and cured as specified in this Section except that final texturing shall be accomplished with an expanded metal grate pressed into the plastic concrete and removed to form a diamond pattern as shown on the plans.

Sidewalk ramps shall be constructed to the same thickness as the adjacent sidewalk with a minimum thickness of 100 mm (4 in.) and shall be measured and paid for as specified for the item of sidewalk involved, and no additional compensation will be allowed.

424.09 Backfill. After the concrete has been cured, the spaces along the edges of the sidewalk and ramps shall be backfilled to the required elevation with approved material. The material shall then be compacted until firm, and the surface neatly graded.

424.10 Disposal of Surplus Material. Surplus or waste material resulting from the sidewalk construction operations shall be disposed of by the Contractor according to Article 202.03.

424.11 Method of Measurement. Portland cement concrete sidewalk and accessibility ramps will be measured for payment in place, and the area computed in square meters (square feet).

424.12 Basis of Payment. This work will be paid for at the contract unit price per square meter (square foot) for PORTLAND CEMENT CONCRETE SIDEWALK of the thickness specified, which price shall include all required expansion joints, special texturing, and variable height edge treatment at sidewalk ramps.

Earth excavation required will be paid for according to Section 202.

PAVEMENT REHABILITATION

SECTION 440. REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES

440.01 Description. This work shall consist of the removal and satisfactory disposal of all existing pavement, base and stabilized subbase, including resurfaced pavement; curb, gutter, and combination curb and gutter, including gutter inlets, outlets, and entrances; paved ditch, median, paved shoulders, driveway pavement, and sidewalk; bituminous surfaces in preparation for subsequent resurfacing; and the partial depth removal of concrete medians. The reference to "paved shoulders" in this Section shall include those shoulders constructed of bituminous and portland cement concrete.

CONSTRUCTION REQUIREMENTS

440.02 General. All existing pavement, including surface courses, base courses, and stabilized subbases, and other appurtenances as listed above, which

Art. 440.03 Removal of Existing Pavement and Appurtenances

interfere with construction work shall be completely removed as shown on the plans or as directed by the Engineer. When portions of existing pavement and appurtenance are to remain in place, provisions shall be made for satisfactory transitions between replacements and the portions remaining in place. The Contractor shall form a perpendicular straight joint by full-depth machine sawing at the ends and all edges of portions to be removed to prevent surface spalling when the concrete is broken out. Any damage done to the existing pavement or appurtenance to remain in place shall be repaired or removed and replaced by the Contractor at his/her own expense, as directed by the Engineer.

It shall be the responsibility of the Contractor to determine the thickness of the existing pavement structure, including overlays, and other appurtenances to be removed, and the extent to which they are reinforced. No additional compensation will be allowed because of variations from the assumed thickness(s) or from the thickness(s) shown on the plans, or for variations in the amount of reinforcement.

Gutter removal shall include the complete removal of all inlets, outlets and entrances that are contained within the limits of the designated removal. The removal of outlets shall include the entire discharge trough and end curtain wall for trough type outlets and the concrete box and outlet pipe for drop box type outlets.

Paved ditch removal shall include the complete removal of all anchor walls and cut-off walls that are contained within the limits of the designated removal.

Any excavation made by the Contractor for the removal shall be replaced. The excavated space shall be filled with material satisfactory to the Engineer and placed according to Section 205 by and at the expense of the Contractor.

440.03 Bituminous Surface Removal for Subsequent Resurfacing. The machine for the removal of bituminous surfaces in preparation for subsequent resurfacing shall be a self-propelled planing machine or a self-propelled milling machine.

The planing machine shall have a wheel base width of not less than 3 m (10 ft) and shall be capable of heating, planing and cutting the old surface and depositing the cuttings into a windrow in one or more passes.

The milling machine shall be capable of cold milling and cutting the existing surface and depositing the cuttings into a windrow or directly loading the cuttings into a truck. It shall be capable of removing a layer of bituminous material at least 1.8 m (6 ft) in width and 40 mm (1 1/2 in.) in depth in a single pass. When the width of surface removal is less than 1.8 m (6 ft), machines less than 1.8 m (6 ft) wide will be permitted except that the area milled shall not be wider than the width of the work specified on the plans. The milling machine shall be capable of accurately and automatically establishing profile grades by reference from either the existing pavement or from an independent grade control to provide a milled surface within a tolerance of 5 mm (3/16 in.) in 5 m (16 ft) when tested with a 5 m (16 ft) straightedge. It also shall have an effective means for removing all loose and excess material from the surface and for preventing any dust resulting from the operation from escaping into the air.

Removal of Existing

The existing bituminous surface shall be removed as shown on the plans. The temperature at which the equipment, and the manner of planing or milled surface is not torn, gouged, or milled operation. Sufficient cutting passes shall be made to eliminate high spots are eliminated to the satisfaction of the Engineer. A 5 m (16 ft) straightedge, the planed or milled surface shall not have an excess of 5 mm (3/16 in.).

Removing the existing bituminous structures in the pavement surface shall be accomplished in a manner satisfactory to the Engineer.

440.04 Median Removal Partial Depth. Median removal partial depth shall be a self-propelled machine to the depth specified by a cutting tools. The equipment shall be capable of removing the median and cross slope of the removal, and shall remove material from the median and of preventing the material from the median.

440.05 Removal and Replacement. When otherwise specified, whenever the structure and/or appurtenances are to be replaced, the replacement shall be performed and placed according to the requirements specified in Sections of these Specifications that apply to the replacement.

440.06 Disposal of Material. Material removed from pavement and appurtenances as herein specified shall be disposed of according to Article 202.03.

440.07 Method of Measurement

- (a) Contract Quantities. The quantities shall be measured according to Article 202.07(a).
- (b) Measured Quantities. Pavement shall be measured for payment in square meters (square yards).

Bituminous surface removal for payment in place and the area for each specified increment shall be measured in square meters (square yards).

Curb removal, gutter removal, paved ditch removal will be measured for curb removal along the face of the curb and along the flow line of the pavement.

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The existing bituminous surface shall be removed to the depth specified on the plans. The temperature at which the work is performed, the nature and condition of the equipment, and the manner of performing the work shall be such that the planed or milled surface is not torn, gouged, shoved or otherwise damaged by the planing or milling operation. Sufficient cutting passes shall be made so that all irregularities or high spots are eliminated to the satisfaction of the Engineer. When tested with a 5 m (16 ft) straightedge, the planed or milled surface shall have no surface variations in excess of 5 mm (3/16 in.).

Removing the existing bituminous surface to the required depth adjacent to structures in the pavement surface such as drain castings and utility covers shall be accomplished in a manner satisfactory to the Engineer using either machine or hand methods.

440.04 Median Removal Partial Depth. The equipment used for median removal partial depth shall be a self-propelled mobile unit capable of removing the concrete to the depth specified by a cold milling process utilizing tungsten carbide cutting tools. The equipment shall be capable of accurately controlling the elevation and cross slope of the removal, and shall have an effective means of removing the material from the median and of preventing dust from escaping into the air.

440.05 Removal and Replacement. Except as provided for in Section 441 or when otherwise specified, whenever the plans indicate that the existing pavement structure and/or appurtenances are to be removed and replaced, the removal and the replacement shall be performed and paid for as separate items. Removal shall be according to the requirements specified herein. Replacement shall be according to Sections of these Specifications that pertain to the specific item or items being replaced.

440.06 Disposal of Material. Materials resulting from the removal of existing pavement and appurtenances as herein specified shall be disposed of as specified in Article 202.03.

440.07 Method of Measurement.

- (a) Contract Quantities. The requirement for use of contract quantities shall be according to Article 202.07(a).
- (b) Measured Quantities. Pavement removal and driveway pavement removal shall be measured for payment in place and the area computed in square meters (square yards).

Bituminous surface removal for subsequent resurfacing will be measured for payment in place and the area computed in square meters (square yards) for each specified increment thickness of material removed.

Curb removal, gutter removal, combination curb and gutter removal and paved ditch removal will be measured for payment in meters (feet). The measurement for curb removal and combination curb and gutter removal will be made along the face of the curb. Paved ditch removal will be measured along the flow line of the paved ditch. Gutter removal will be measured

Art. 441.01

Pavement Replacement

along the edge of the gutter which is in actual contact with the edge of the pavement.

Sidewalk removal, median removal and median removal partial depth will be measured for payment in place and the area computed in square meters (square feet).

Removal of any of the items listed above outside the designated limits as shown on the plans or as directed by the Engineer will not be measured for payment. The removal of base and stabilized subbase will not be measured for payment as separate items, but shall be considered as included in the contract unit price for Pavement Removal, and no additional compensation will be allowed.

440.08 Basis of Payment. This work will be paid for at the contract unit price per square meter (square yard) for PAVEMENT REMOVAL, DRIVEWAY PAVEMENT REMOVAL and PAVED SHOULDER REMOVAL; at the contract unit price per square meter (square yard) for BITUMINOUS SURFACE REMOVAL of the thickness specified; at the contract unit price per meter (foot) for CURB REMOVAL, GUTTER REMOVAL, COMBINATION CURB AND GUTTER REMOVAL, and PAVED DITCH REMOVAL; and at the contract unit price per square meter (square foot) for SIDEWALK REMOVAL, MEDIAN REMOVAL and MEDIAN REMOVAL PARTIAL DEPTH. The contract unit price for Pavement Removal shall include removing and disposing of the entire pavement structure.

The contract unit price for Gutter Removal shall include removing all inlets, outlets and entrances, including concrete boxes and outlet pipes, and discharge troughs and end curtain walls even though they may partially extend beyond the limits of measurement.

The contract unit price for Pavement Removal shall include removing and disposing of the entire pavement structure, including surface, base, and any stabilized subbase.

The contract unit price for Paved Ditch Removal shall include removing any and all anchor walls and cut-off walls encountered.

SECTION 441. PAVEMENT REPLACEMENT

441.01 Description. This work shall consist of the removal and replacement, and any necessary excavation and embankment of all surface, base course, and subbase as shown on the plans.

Where all of the pavement, including subbase, base and surface course, is to be replaced, the item will be specified as "Pavement Replacement". If only surface course, binder course, cushion and joint filler is to be replaced, the item will be specified as "Pavement Replacement - Surface Course".

The term "excavation" or "embankment" as used in this Article refers only to that necessary for the preparation of the subgrade, where the "Pavement Replacement" is full depth.

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441.03 General. All restored to the original cross :

The elevation of the surf than 3 mm (1/8 in.) from the The subgrade in the case of cushion or filler on the base adjusted so that this result will

Pavement damaged by re limit of 600 mm (2 ft) from the at his/her own expense.

441.04 Portland Ceme cement concrete base or surfa courses which are removed sh surface courses meeting the except that hand methods of cc

441.05 Brick, Granite granite block or wood block su specified on the plans or direct or wood blocks taken from replacement. If additional bri Contractor shall furnish a simil Brick, granite block or wood blo screenings cushion approximat with asphalt. The surface or ba an approved compacted bitu concrete according to Article 44

441.06 Bituminous Sur binder courses which are rem bituminous materials meeting tl type used shall be that which cl shall be approved in writing by th

441.07 Gravel or Crush crushed stone base and surface equal thickness of materials mee The type used shall be that whi and shall be approved in writing l

441.08 Base and Subbas subbase which are removed sha